APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,226	08/30/2000	Arun K. Gupta	102157-100	2299

27267   7590   07/31/2002

WIGGIN & DANA LLP
ATTENTION: PATENT DOCKETING
ONE CENTURY TOWER, P.O. BOX 1832
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EXAMINER
SPIEGEL, MICHAEL A

ART UNIT	PAPER NUMBER
2175	

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-5_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-5_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

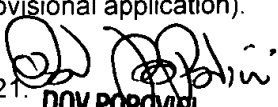8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

DOV POROVISI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _3_ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Claim Objections

1.   Claims 1-5 are objected to because of the following informalities: in Claim 1,

line 3, the recitation of "Specifying" should be –specifying--. Appropriate correction is

required.

Claims 2-5 are objected to because Claims 2-5 are dependent from objected to

independent Claim 1.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claim 1 recites the limitation "said identified data elements" in lines 5, 6, and 9.

There is insufficient antecedent basis for this limitation in the claim.

The claimed limitation of "said identified data elements" recited in Claim 1, lines

5-6, is unclear, vague, and indefinite in the context of the claim.

The "identified data elements" is not defined or explained in the claim. It appears

that the recitation of "identified data elements" should be "specified data elements."

Clarification is required.

Claims 2-5 are rejected under 35 USC 112, 2nd paragraph, because Claims 2-5 are

dependent from on rejected independent Claim 1.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheffield

(U.S. 5,832,431) in view of Goldberg (U.S. 5,907,847).

As to Claim 1, Sheffield discloses a method for extracting desired data from a

digital database comprising the steps of:

1) specifying desired data elements to be extracted from an operational database (see

Col. 3, lines 12-15, and also see Fig. 21, where Sheffield teaches how a programmer

may use an SQL statement or a GUI to specify one or more database tables and columns

within those tables, thus selecting the desired data elements.);

2) executing the executable code thereby extracting the identified data elements from the

database (see Col. 3, lines 21-23 where Sheffield teaches how the specified data

elements may be selected and extracted and see Col. 4, lines 17-22 where Sheffield

teaches how code or "commands" are executed to retrieve the data from the operational

database).[1]

Sheffield does not teach that executable code is generated from the identified data

elements. Rather, Sheffield discloses an interface object that resides between a client

application and a database manager, which contains all the code ("methods" or

"commands") necessary to perform such functions as data extraction.

Goldberg teaches that ~~that~~ the executable code is generated from the data elements

and discloses a method in which an object's state and behavior may be coupled in a

database management system. (See Fig. 5A, 504 and Col. 8 lines 36-39). Goldberg

defines an object's state as being: "determined by the set of values an object carries for a

set of properties or variables. A property can be an attribute of the object or a relation

between the object and one or more other objects," and an object's behavior as being

"defined by the set of operations that can be performed with the object. Each operation

is implemented in a routine that is referred to as a method. An object can include a

plurality of methods. An operation is performed by invoking one of the object's

methods." (See Goldberg, Col 1, lines 23-32)

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[1] Examiner uses Applicant's definition of an operational database as a database
"typically designed to support all the business needs of an enterprise" (see instant
application, p. 2, lines 28-30) in contrast to a staging database which is used only to
store data extracted in the process of data mining from an operational database. (See
instant application, p. 3, lines 9-12.) Examiner considers any database mentioned in the
prior art as being an operational database, unless it is specified as being a staging
database, as per Applicant's definition.

Goldberg further teaches how an object's behavior may be stored with its state as methods (Fig. 3) and how these methods may be used to generate code for all relevant operations on the object's state (See Fig. 5A, 504 and Col. 8 lines 36-39).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the data extraction method of Sheffield to include the generation of executable code from the identified data elements for extracting the identified data elements from the database.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the data extraction method of Sheffield to include the generation of executable code from the identified data elements for extracting the identified data elements from the database for the following reasons:

a) so that the state and behavior of the object are stored reliably in the Database Management System (DBMS) in a single location such that a modification can be made to both state and behavior in one transaction ;

b) so that when an object is extracted or replicated both its state and its behavior can be transferred securely and reliably; and

c) so that platform independent code can be generated from the object itself without additional modification when the object is extracted and stored in another environment (as taught by Goldberg at Col. 6, lines 6-13; Col. 7, lines 33-48).

6.   Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheffield (U.S. 5,832,431) in view of Goldberg (U.S. 5,907,847) as applied to Claim 1 above, and further in view of Medl (U.S. 6,108,004).

As to Claim 2, Sheffield as modified discloses that data may be extracted and stored in another destination. (See Col. 4, lines 44-46)

Sheffield as modified does not teach that the executable code stores the extracted data elements in a staging database.

Medl teaches data mining and storing data in a staging database. (See Col. 7, lines 33-48. Note that Applicant defines "staging database" as one used in data mining; Medl discloses a database used in data mining. Therefore, staging database reads on: a database used in data mining as disclosed by Medl at Col. 7, lines 3-48.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Sheffield as modified wherein: the executable code stores the extracted data elements in a staging database.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Sheffield as modified by the teaching of Medl because employing the use of a staging database to store data elements would allow the data elements to be used in data mining applications as data mining is a well known and useful technique for recognition of patterns such as profit, efficiency, and inventory.

As to Claim 3, Sheffield as modified discloses that the operational database is relational.(See Sheffield, Col. 2 line 60 - Col. 3 line 4; Goldberg, Col. 8, lines 28-29. Also see footnote to Claim 1 for discussion on operational and staging databases.)

As to Claim 4, <u>Sheffield</u> as modified discloses that the staging database is relational.(See Sheffield, Col. 2 line 60 - Col. 3 line 4; Goldberg, Col. 8, lines 28-29. Also see footnote to Claim 1 for discussion on operational and staging databases.)

As to Claim 5, <u>Sheffield</u> as modified discloses that identifying the data elements to be extracted comprises the steps of selecting data elements stored in a repository through a graphical user interface. (See <u>Sheffield</u>, Fig. 1, 20a; Fig 5; Fig 21)

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Banning et al. (U.S. 5,721,901) teaches a graphical user interface for making data selections in a database.

Powers et al. (U.S. 6,038,558) teaches a database retrieval and viewing architecture.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Spiegel whose telephone number is 703-305-7605. The examiner can normally be reached on M-F 9:00-5:30.
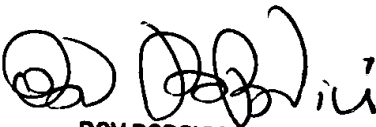
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

mas
July 26, 2002

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
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